Given a projective plane P, take a quadrilateral:

0

Call this:



the line at infinity. Henceforth, draw it far away. Two lines:



are parallel if they meet at the line at infinity. One of the two "finite" points of our quadrilateral we designate the *origin*. We draw lines from it out to the two "far away" points: the *axes*:



Map any point p not on the line at infinity to points on the two axes:



and

$$p_y \qquad p$$